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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/430,501	10/29/1999	DONGMING HWANG	RAL9-99-0110	7395

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EXAMINER	
KUMAR, PANKAJ	

ART UNIT	PAPER NUMBER
2631	16

DATE MAILED: 05/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/430,501	HWANG ET AL.	
	Examiner	Art Unit	
	Pankaj Kumar	2631	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 March 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-37* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *17* is/are allowed.

6)☒ Claim(s) *1,2,11,12,18,19,28 and 29* is/are rejected.

7)☒ Claim(s) *3-10, 13-16, 20-27, 30-37* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

1. DETAILED ACTION

2. Response to Arguments

3. In view of the appeal brief filed on 3/5/2004, PROSECUTION IS HEREBY REOPENED for the reasons set forth below.

4. To avoid abandonment of the application, appellant must exercise one of the following two options:

a. file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

b. request reinstatement of the appeal.

5. If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

6. Applicant's arguments with respect to claims 1-37 have been considered but are moot in view of the new ground(s) of rejection.

7. For claim 1, applicant argues that Kaku does not teach updating a carrier drop detection threshold since in figure 9 S1 to S4, Kaku is switching between different thresholds and thus Kaku is not updating thresholds. This is not persuasive. Kaku fig. 9 S1 says "SET THRESHOLD LEVEL TO ... L-1" and S4 says "SET THRESHOLD LEVEL TO ... L2". Since Kaku is setting thresholds to various values, it is updating thresholds. The mere fact that Kaku only sets thresholds to two different values does not mean that Kaku is not updating thresholds. Kaku is updating thresholds by setting thresholds to various values.

8. Applicant also argues that in Kaku, threshold updating is not responsive to the selected data pattern in the signal data since the threshold values are known in advance. This is not persuasive since what is claimed is "... updating a ... threshold based on the received signal responsive to a selected data pattern in the signal data ..." Thus, in order for a reference to teach the limitations of the claim, the received signal has to be responsive to a selected data pattern and the threshold has to be updated based on the received signal. Applicant has not necessarily claimed threshold updating being responsive to the selected data. Kaku teaches the limitations since Kaku teaches selected data pattern in figure 11. Kaku teaches a received signal being the input into 79A. The output of 79A is responsive to the input of 79A. Accordingly, based on the following quote from Kaku, the received signal in 79A is responsive to the selected data pattern in fig. 11. Kaku: "... Accordingly, with such a data pattern as shown in FIG. 11, the power (energy) obtained at the power calculation section 84 is reduced to zero. In such an instance, the output CDI (carrier) of the carrier detection section 79A may possibly change over to OFF (carrier absence) ... "

9. Applicant also argues that Kaku teaches away from threshold updating being responsive to the selected data. This is not persuasive for a number of reasons. First, as explained above, what is claimed is "... updating a ... threshold based on the received signal responsive to a selected data pattern in the signal data ..." Thus, in order for a reference to teach the limitations of the claim, the received signal has to be responsive to a selected data pattern and the threshold has to be updated based on the received signal. Applicant has not necessarily claimed threshold updating being responsive to the selected data. Kaku teaches the limitations as explained above. Thus Kaku does not teach away, but instead teaches what is claimed.

10. Applicant also argues that Kaku does not teach CM or JM signals. This is not persuasive since in Kaku, CM is the signal sent by the call modem and received by the answer modem and JM is the signal sent by the answer modem and received by the call modem.

11. Applicant goes on to say that CM is the call menu signal and JM is the joint menu signal. It should be noted that applicant's specification page 6 towards the bottom defines CM as being the signal from the call modem and received by the answer modem and defines JM as being the signal from the answer modem and received by the call modem.

12. Applicant argues that setting threshold values based on the latched received signal strength would result in many variable threshold levels instead of just two. This is not persuasive since applicant has not claimed the result of many variable threshold levels.

13. Applicants further argue that the thresholds are determined in advance in Kaku while the updating of applicants' thresholds are responsive to a selected data pattern. This is not persuasive since multiple thresholds in Kaku are predetermined at S1 and S4 of figure 9, while the system is operating, and Kaku is updating to these thresholds as a response to a selected data pattern.

14. Applicants also argue that Kaku works independently of data patterns in the signal. This is not persuasive since Kaku teaches the following which was also cited in the first office action: (Kaku: "... **Accordingly, with such a data pattern** as shown in FIG. 11, **the power (energy) obtained** at the power calculation section 84 is reduced to zero. In such an instance, the output CDI (carrier) of the carrier detection section 79A may possibly change over to OFF (carrier absence) ... "; hence Kaku is very much dependent on the data patterns in the signal). Also figure 9 in Kaku shows threshold being determined based on energy level of the data.

15. Response to Amendment

16. Claim Rejections - 35 USC § 103

17. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

18. A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

19. Claims 1, 2, 11, 12, 18, 19, 28, 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kaku.

20. As per claim 1, Kaku teaches a method for modem carrier drop detection (Kaku col. 12: 2nd full paragraph) comprising the steps of: demodulating (Kaku fig. 7: 71A) a received signal (Kaku fig. 7: input into 71A) to provide signal data; updating a carrier drop detection threshold based on the received signal responsive to a selected data pattern in the signal data (would be obvious in Kaku as discussed below); and detecting a carrier drop (Kaku fig. 9: S7) based on the carrier drop detection threshold (Kaku fig. 9: S4).

21. Kaku teaches updating a carrier drop detection threshold based on the received signal. Kaku teaches that a threshold is updated from energy level L-1 to L2 (Kaku fig. 9: S1, S4 – threshold is updated from S1 to S4; col. 4: fig. 9 illustrates determination section of fig. 7 which is a modem) and this is being done for Carrier Drop Indication CDI-ON and CDI-OFF determination and thus the threshold is a carrier drop detection threshold. Kaku also teaches that fig. 9 is part of fig. 7 79A which occurs after the received signal into 71A. Accordingly, Kaku teaches updating a carrier drop detection threshold based on the received signal.

22. Kaku does not teach updating a carrier drop detection threshold responsive to a selected data pattern in the signal data. But Kaku does teach that a threshold is updated from energy level L-1 to L2 (Kaku fig. 9: S1, S4 – threshold is updated from S1 to S4; col. 4: fig. 9 illustrates determination section of fig. 7 which is a modem). It would have been obvious to one skilled in the art at the time of the invention to modify Kaku to teach this threshold update was the update of the carrier drop detection threshold. One would have been motivated to do so since carrier drop indication (CDI) is off in Kaku fig. 9 S4 with a threshold level of energy level L2.

23. Kaku also teaches selecting a data pattern since Kaku's fig. 9 illustrates determination section of fig. 7, and figure 7 has a filter 82 for selecting a data pattern (Kaku: "... Accordingly, with such a data pattern as shown in FIG. 11, the power (energy) obtained at the power calculation section 84 is reduced to zero.") and this data pattern is inherently in Kaku's signal data, in order for Kaku's system to function (would be illogical for Kaku's data pattern in figure 11 to not be in Kaku's signal data).

24. Although Kaku's data pattern is not the same as applicant's data pattern as shown in various figures of the applicant, applicant has also not claimed the data pattern as specifically shown in applicant's drawings. But even if the office goes by 112 paragraph 6 criteria (means plus function criteria), it would have been obvious to one skilled in the art at the time of the invention to modify Kaku to teach the data pattern as shown in applicant's figures instead of the data pattern Kaku is using since applicant is using digital data while Kaku is representing digital data in the frequency domain in fig. 11. One would be motivated to do so since Kaku shows conversion to digital in element 45 of figure 7.

25. Kaku also does not teach threshold updating is responsive to the selected data pattern in the signal data. It would have been obvious to one skilled in the art at the time of the invention to modify Kaku to teach the responsive claim language. One would be motivated to do so since Kaku's determination section performs threshold updating as shown in figures 7 and 9 and this occurs after the filter which selects the data pattern of Kaku's fig. 11 and this selected data pattern would be in Kaku's signal data (otherwise Kaku would be filtering on nonexistent data pattern which would make Kaku's system inefficient). Since the determination section is after the filtering section, the determination section is responsive to the filtering.

26. As per claim 2, Kaku teaches a method according to Claim 1. What Kaku does not teach is wherein the modem uses a V.8 standard during startup and the step of updating comprises the step of updating the carrier drop detection threshold responsive to a selected data pattern in the signal data (discussed in claim 1) corresponding to at least one of a CM signal (sent by call modem, received by answer modem) and a JM signal (sent by answer modem, received by call modem).

27. Although Kaku does not teach that the modem uses a V.8 standard during startup, it would have been obvious to one skilled in the art at the time of the invention to modify Kaku to teach that the modem uses a V.8 standard during startup. One would be motivated to do so since one would want to use the latest standard so that one modem can communicate with another modem.

28. Kaku also does not teach the selected data pattern in the signal data corresponds to at least one of a CM signal and a JM signal. It would have been obvious to one skilled in the art at

the time of the invention to modify Kaku to teach the selected data pattern in the signal data corresponds to at least one of a CM signal and a JM signal. One would be motivated to do so since applicant's CM signal is Kaku's signal sent by a call modem and received by an answer modem and applicant's JM signal is Kaku's signal sent by an answer modem and received by a call modem (Kaku fig. 2: 23, 23') and filtering is being performed in Kaku which selects the appropriate data pattern. Just because applicant uses a different name for Kaku's function (CM and JM), does not make applicant's claim contain allowable subject matter.

29. As per claim 11, Kaku teaches a carrier drop detection system comprising (preamble is not afforded patentable weight): a demodulator (Kaku fig. 7: 71A) that demodulates a received signal (Kaku fig. 7: input into 71A) to provide signal data (Kaku fig. 7: output of 71A); a threshold circuit (Kaku fig. 9: S1) coupled to the demodulator (would be obvious as discussed below) that latches a carrier drop detection threshold at a level (Kaku fig. 9: S1-"Set threshold level to energy level L-1 for CDI-ON determination ..."; latching threshold to energy level L-1 by setting threshold to energy level L-1 and this is being done for Carrier Drop Indication(CDI)-ON determination and thus the threshold is a carrier drop detection threshold) based on the received signal responsive to a selected data pattern in the signal data (would be obvious over Kaku as discussed below); and a carrier drop detection circuit (Kaku fig. 9: S3, S7) coupled to the threshold circuit that detects a carrier drop (Kaku fig. 9: S2, S5) based on the carrier drop detection threshold (Kaku fig. 9: L1, L2).

30. Kaku teaches latching a carrier drop detection threshold at a level based on the received signal. Kaku teaches that a threshold is latched at energy level L-1 (Kaku fig. 9: S1; col. 4: fig. 9

illustrates determination section of fig. 7 which is a modem) and this is being done for Carrier Drop Indication CDI-ON determination and thus the threshold is a carrier drop detection threshold. Kaku also teaches that fig. 9 is part of fig. 7 79A which occurs after the received signal into 71A. Accordingly, Kaku teaches latching a carrier drop detection threshold at a level based on the received signal.

31. Kaku does not teach that a threshold circuit (Kaku fig. 9: S1 which is part of fig. 7: 79A) is coupled to the demodulator (Kaku fig. 7: 71A). It would have been obvious to one skilled in the art at the time of the invention to modify Kaku to teach that a threshold circuit is coupled to the demodulator. One would be motivated to do so since removing parts of an invention requires routine skill in the art and removing component(s) between 71A and 79A in Kaku would speed up signal processing.

32. Kaku also teaches selecting a data pattern since Kaku's fig. 9 illustrates determination section of fig. 7, and figure 7 has a filter 82 for selecting a data pattern (Kaku: "... Accordingly, with such a data pattern as shown in FIG. 11, the power (energy) obtained at the power calculation section 84 is reduced to zero.") and this data pattern is inherently in Kaku's signal data, in order for Kaku's system to function (would be illogical for Kaku's data pattern in figure 11 to not be in Kaku's signal data).

33. Although Kaku's data pattern is not the same as applicant's data pattern as shown in various figures of the applicant, applicant has also not claimed the data pattern as specifically shown in applicant's drawings. But even if the office goes by 112 paragraph 6 criteria (means plus function criteria), it would have been obvious to one skilled in the art at the time of the invention to modify Kaku to teach the data pattern as shown in applicant's figures instead of the

data pattern Kaku is using since applicant is using digital data while Kaku is representing digital data in the frequency domain in fig. 11. One would be motivated to do so since Kaku shows conversion to digital in element 45 of figure 7.

34. Kaku also does not teach threshold latching is responsive to the selected data pattern in the signal data. But Kaku does teach that a threshold is latched at energy level L-1 (Kaku fig. 9: threshold is set and hence latched at S1; col. 4: fig. 9 illustrates determination section of fig. 7 which is a modem). It would have been obvious to one skilled in the art at the time of the invention to modify Kaku to teach the responsive claim language. One would be motivated to do so since Kaku's determination section performs threshold latching as shown in figures 7 and 9 and this occurs after the filter which selects the data pattern of Kaku's fig. 11 and this selected data pattern would be in Kaku's signal data (otherwise Kaku would be filtering on nonexistent data pattern which would make Kaku's system inefficient). Since the determination section is after the filtering section, the determination section is responsive to the filtering.

35. As per claim 12, Kaku teaches a carrier drop detection system according to claim 11 wherein the demodulator is a frequency shift keyed (FSK) demodulator. (Kaku: "Phase shift keying (PSK), orthogonal amplitude modulation (QAM) or some other modulation is used for a main signal while frequency shift keying (FSK) is used for a secondary signal. "; thus an FSK demodulator is inherent)

36. As per claim 18, Kaku teaches a carrier drop detection system comprising (preamble is not afforded patentable weight): means for demodulating (Kaku fig. 7: 71A) a received signal

(Kaku fig. 7: input into 71A) to provide signal data (Kaku fig. 7: output of 71A); means for updating a carrier drop detection threshold based on the received signal responsive to a selected data pattern in the signal data (would be obvious in Kaku as discussed below); and means for detecting a carrier drop (Kaku fig. 9: S2, S5) based on the carrier drop detection threshold (Kaku fig. 9: L1, L2).

37. Kaku teaches updating a carrier drop detection threshold based on the received signal. Kaku teaches that a threshold is updated from energy level L-1 to L2 (Kaku fig. 9: S1, S4 – threshold is updated from S1 to S4; col. 4: fig. 9 illustrates determination section of fig. 7 which is a modem) and this is being done for Carrier Drop Indication CDI-ON and CDI-OFF determination and thus the threshold is a carrier drop detection threshold. Kaku also teaches that fig. 9 is part of fig. 7 79A which occurs after the received signal into 71A. Accordingly, Kaku teaches updating a carrier drop detection threshold based on the received signal.

38. Kaku does not teach updating a carrier drop detection threshold responsive to a selected data pattern in the signal data. But Kaku does teach that a threshold is updated from energy level L-1 to L2 (Kaku fig. 9: S1, S4 – threshold is updated from S1 to S4; col. 4: fig. 9 illustrates determination section of fig. 7 which is a modem). It would have been obvious to one skilled in the art at the time of the invention to modify Kaku to teach this threshold update was the update of the carrier drop detection threshold. One would have been motivated to do so since carrier drop indication (CDI) is off in Kaku fig. 9 S4 with a threshold level of energy level L2.

39. Kaku also teaches selecting a data pattern since Kaku's fig. 9 illustrates determination section of fig. 7, and figure 7 has a filter 82 for selecting a data pattern (Kaku: "... Accordingly, with such a data pattern as shown in FIG. 11, the power (energy) obtained at the power

calculation section 84 is reduced to zero.") and this data pattern is inherently in Kaku's signal data, in order for Kaku's system to function (would be illogical for Kaku's data pattern in figure 11 to not be in Kaku's signal data).

40. Although Kaku's data pattern is not the same as applicant's data pattern as shown in various figures of the applicant, applicant has also not claimed the data pattern as specifically shown in applicant's drawings. But even if the office goes by 112 paragraph 6 criteria (means plus function criteria), it would have been obvious to one skilled in the art at the time of the invention to modify Kaku to teach the data pattern as shown in applicant's figures instead of the data pattern Kaku is using since applicant is using digital data while Kaku is representing digital data in the frequency domain in fig. 11. One would be motivated to do so since Kaku shows conversion to digital in element 45 of figure 7.

41. Kaku also does not teach threshold updating is responsive to the selected data pattern in the signal data. It would have been obvious to one skilled in the art at the time of the invention to modify Kaku to teach the responsive claim language. One would be motivated to do so since Kaku's determination section performs threshold updating as shown in figures 7 and 9 and this occurs after the filter which selects the data pattern of Kaku's fig. 11 and this selected data pattern would be in Kaku's signal data (otherwise Kaku would be filtering on nonexistent data pattern which would make Kaku's system inefficient). Since the determination section is after the filtering section, the determination section is responsive to the filtering.

42. As per claim 19, Kaku teaches a system according to Claim 18. What Kaku does not teach is wherein the modem uses a V.8 standard during startup and the means for updating

comprises the means for updating the carrier drop detection threshold responsive to a selected data pattern in the signal data (discussed in claim 18) corresponding to at least one of a CM signal (sent by call modem, received by answer modem) and a JM signal (sent by answer modem, received by call modem).

43. Although Kaku does not teach that the modem uses a V.8 standard during startup, it would have been obvious to one skilled in the art at the time of the invention to modify Kaku to teach that the modem uses a V.8 standard during startup. One would be motivated to do so since one would want to use the latest standard so that one modem can communicate with another modem.

44. Kaku also does not teach the selected data pattern in the signal data corresponds to at least one of a CM signal and a JM signal. It would have been obvious to one skilled in the art at the time of the invention to modify Kaku to teach the selected data pattern in the signal data corresponds to at least one of a CM signal and a JM signal. One would be motivated to do so since applicant's CM signal is Kaku's signal sent by a call modem and received by an answer modem and applicant's JM signal is Kaku's signal sent by an answer modem and received by a call modem (Kaku fig. 2: 23, 23') and filtering is being performed in Kaku which selects the appropriate data pattern. Just because applicant uses a different name for Kaku's function (CM and JM), does not make applicant's claim contain allowable subject matter.

45. As per claim 28, Kaku teaches a computer program product for carrier drop detection, comprising: a computer readable storage medium having computer readable program code means embodied therein, the computer readable code means comprising (preamble is not

afforded patentable weight): computer readable code which demodulates a received signal (Kaku fig. 7: input into 71A) to provide signal data (Kaku fig. 7: output of 71A); computer readable code which updates a carrier drop detection threshold based on the received signal responsive to a selected data pattern in the signal data (would be obvious in Kaku); and computer readable code which detects a carrier drop (Kaku fig. 9: S2, S5) based on the carrier drop detection threshold (Kaku fig. 9: L1, L2).

46. Kaku teaches updating a carrier drop detection threshold based on the received signal. Kaku teaches that a threshold is updated from energy level L-1 to L2 (Kaku fig. 9: S1, S4 – threshold is updated from S1 to S4; col. 4: fig. 9 illustrates determination section of fig. 7 which is a modem) and this is being done for Carrier Drop Indication CDI-ON and CDI-OFF determination and thus the threshold is a carrier drop detection threshold. Kaku also teaches that fig. 9 is part of fig. 7 79A which occurs after the received signal into 71A. Accordingly, Kaku teaches updating a carrier drop detection threshold based on the received signal.

47. Kaku does not teach updating a carrier drop detection threshold responsive to a selected data pattern in the signal data. But Kaku does teach that a threshold is updated from energy level L-1 to L2 (Kaku fig. 9: S1, S4 – threshold is updated from S1 to S4; col. 4: fig. 9 illustrates determination section of fig. 7 which is a modem). It would have been obvious to one skilled in the art at the time of the invention to modify Kaku to teach this threshold update was the update of the carrier drop detection threshold. One would have been motivated to do so since carrier drop indication (CDI) is off in Kaku fig. 9 S4 with a threshold level of energy level L2.

48. Kaku also teaches selecting a data pattern since Kaku's fig. 9 illustrates determination section of fig. 7, and figure 7 has a filter 82 for selecting a data pattern (Kaku: "... Accordingly,

with such a data pattern as shown in FIG. 11, the power (energy) obtained at the power calculation section 84 is reduced to zero.") and this data pattern is inherently in Kaku's signal data, in order for Kaku's system to function (would be illogical for Kaku's data pattern in figure 11 to not be in Kaku's signal data).

49. Although Kaku's data pattern is not the same as applicant's data pattern as shown in various figures of the applicant, applicant has also not claimed the data pattern as specifically shown in applicant's drawings. But even if the office goes by 112 paragraph 6 criteria (means plus function criteria), it would have been obvious to one skilled in the art at the time of the invention to modify Kaku to teach the data pattern as shown in applicant's figures instead of the data pattern Kaku is using since applicant is using digital data while Kaku is representing digital data in the frequency domain in fig. 11. One would be motivated to do so since Kaku shows conversion to digital in element 45 of figure 7.

50. Kaku also does not teach threshold updating is responsive to the selected data pattern in the signal data. It would have been obvious to one skilled in the art at the time of the invention to modify Kaku to teach the responsive claim language. One would be motivated to do so since Kaku's determination section performs threshold updating as shown in figures 7 and 9 and this occurs after the filter which selects the data pattern of Kaku's fig. 11 and this selected data pattern would be in Kaku's signal data (otherwise Kaku would be filtering on nonexistent data pattern which would make Kaku's system inefficient). Since the determination section is after the filtering section, the determination section is responsive to the filtering.

51. As per the computer limitations, a claim should be considered as reciting a mathematical algorithm (in this instance a computer program, computer readable code) if it essentially recites,

directly or indirectly, method of computing one or more numbers from different set of numbers by performing series of mathematical computations, with emphasis thus being placed on what the claimed method steps do rather than how the steps are performed (In re Logan, 20 USPQ2nd 1465)

52. As per claim 29, Kaku teaches a product according to Claim 28. What Kaku does not teach is wherein the modem uses a V.8 standard during startup and the computer readable code which updates comprises computer readable code which updates the carrier drop detection threshold responsive to a selected data pattern in the signal data (discussed in claim 28) corresponding to at least one of a CM signal (sent by call modem, received by answer modem) and a JM signal (sent by answer modem, received by call modem).

53. Although Kaku does not teach that the modem uses a V.8 standard during startup, it would have been obvious to one skilled in the art at the time of the invention to modify Kaku to teach that the modem uses a V.8 standard during startup. One would be motivated to do so since one would want to use the latest standard so that one modem can communicate with another modem.

54. Kaku also does not teach the selected data pattern in the signal data corresponds to at least one of a CM signal and a JM signal. It would have been obvious to one skilled in the art at the time of the invention to modify Kaku to teach the selected data pattern in the signal data corresponds to at least one of a CM signal and a JM signal. One would be motivated to do so since applicant's CM signal is Kaku's signal sent by a call modem and received by an answer modem and applicant's JM signal is Kaku's signal sent by an answer modem and received by a

call modem (Kaku fig. 2: 23, 23') and filtering is being performed in Kaku which selects the appropriate data pattern. Just because applicant uses a different name for Kaku's function (CM and JM), does not make applicant's claim contain allowable subject matter.

55. Allowable Subject Matter

56. Claims 3-10, 13-16, 20-27, 30-37 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

57. Claim 17 allowed based on an argument

58. Conclusion

59. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pankaj Kumar whose telephone number is (703) 305-0194. The examiner can normally be reached on Mon, Tues, Wed and Thurs after 8AM to after 6:30PM.

60. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad H. Ghayour can be reached on (703) 306-3034. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

61. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

62.

63.

64. PK

TEMESGHEN GREBRETINSAE
PRIMARY EXAMINER